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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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NIXON & VANDERHYE, PC
1100 N GLEBE ROAD
8TH FLOOR
ARLINGTON, VA 22201-4714

EXAMINER

WALSH, BRIAN D

ART UNIT PAPER NUMBER

3722

DATE MAILED: 08/21/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/922,938

Applicant(s)

WIRTH ET AL.

Examiner

Brian D. Walsh

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION. #12

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10, 12, 14-16 and 18-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-10 is/are allowed.
- 6) ☒ Claim(s) 12, 14-16 and 18-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

This is a second-Action, Non-final, since claims 12 and 20 have been provided with new grounds for rejection.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claim 20 is rejected under 35 U.S.C. 102(b) as being anticipated by Clay.

Clay discloses the tool rest assembly comprises a tool support housing (43) extending vertically from a tool rest main body (10), the tool rest main body comprising a tool rest housing (12) and a locking assembly for selectively locking the tool rest housing to the bedway (50) the locking assembly comprising a locking plate (22) for engaging an undersurface (50A) of the bedway. Clay further discloses a slider block (55) seated and disposed within the tool rest housing, a non-circular locking shaft (15) or cam extending longitudinally of the housing and disposed through a bore (13) in the slider block, and a locking piston vertically and slidably disposed in the slider block, the locking piston having a bore for being aligned with the bored of the slider block to receiving the locking shaft and having a shaft for being detachably mounted to the locking plate. The rotation of the locking shaft about the longitudinal axis thereof lifts the

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locking piston and the locking plate mounted thereto while pressing the block so as to clamp the housing to the bedway of the lathe (Col. 2, lines 23 – 58 and Col. 3, lines 41 – 49) .

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over McCormack in view of Gray.

McCormack discloses a lathe assembly comprising a base unit (11) inherently having first and second longitudinal ends, a headstock assembly (12) inherently having a spindle housing having a spindle shaft extending therethrough. McCormack further discloses a first lathe bed (14) assembly provided on the base unit and including a bedway (illustrated in figure 2) extending longitudinally in a direction parallel to the longitudinal axis of the spindle for receiving on of a tool rest and a tailstock and a second lathe bed assembly (13) detachably coupled to one of the ends of the base unit including a bedway for receiving a tool rest or tailstock assembly (Abstract, lines 13 – 16). The term “modular,” by definition, insinuates that the bedway is to modified (adding or subtracting bed portions) to meet the needs of the user. Since McCormack explicitly discloses that work can be done on either side of the headstock, it is possible that the modules (or standardized units) that are crucial to the invention can be placed on either or both sides of the headstock.

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However, McCormack fails to explicitly state that the bedway is disclosed on both sides of the headstock. Gray discloses metal working lathe with a headstock (referred to as “dog” by Gray) assembly (generally shown at *I* in figure 1) having a base support unit on either side (generally shown at *H* and *H'*) each having tailstocks (*B* and *B'*, respectively) and tool posts (*F* and *F'*, respectively) on either side of the headstock assembly.

This teaching in combination with the teachings gleaned from McCormack provides that it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the already modular and interchangeable lathe bed of McCormack to have a supported bed section on either side of the headstock (as McCormack is capable of performing) since Gray teaches the use of the supports on either side of the headstock in order to make the lathe more accurate and to maintain a uniform driving force on the workpiece (page 1, paragraphs 3 and 4).

3. Claims 14, 16, 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over McCormack in view of Caddaye et al. and in further view of Hardy.

McCormack discloses all of the elements as set forth in the above rejection. It is clear in figure 2 that McCormack discloses a guide in the bedway (labeled as ‘bw’ by the Examiner) but does not explicitly state that a tailstock is selectively slidable in that guide and has a generally circular transverse cross-section and generally elliptical longitudinal section.

Regarding Claim 18, as stated above McCormack inherently discloses a second base unit opposite the first base unit. It is clear that the first base unit (14) supports the longitudinal end thereof and therefore the second base unit (since the apparatus is modular) would function identically.

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Regarding Claim 19, McCormack discloses a longitudinal (13B) end of the second lathe bed assembly (13) remote from the first base unit (14) which is substantially unsupported.

Please refer to figure 1 of McCormack

However, McCormack fails to disclose a selectively slidable tailstock in the bedway of the lathe.

Caddaye et al. discloses a modular lathe similar to the instant invention including a tailstock (23) that is selectively slidable in the bedway of the lathe. It is clear from figure 3 that Caddaye et al. discloses a guide nearly identical to that which is disclosed by McCormack in figure 2.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the lathe bed of McCormack to include a selectively slidable tailstock as taught by Caddaye et al. since Caddaye et al. discloses an identical guide in the bedway of a lathe including a selectively slidable tailstock in order to allow the tailstock to be properly brought into alignment and properly support the workpiece (Col. 1, lines 56 – 58).

Neither McCormack or Caddaye et al. disclose a tailstock with an elliptical longitudinal shape.

Hardy discloses a lathe similar to the instant invention with a tailstock (12) that is clearly of a generally elliptical shape in the longitudinal direction and had a circular cross-section, transverse to the longitudinal direction. Please refer to figure 1. It is inherent that the tailstock has a rotatable quill disposed therein.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the tailstock of either McCormack to have the dimensional

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characteristics of Hardy since Hardy teaches the use of this standard tailstock (Col. 2, lines 21 – 22) on a lathe to provide a lathe of simple and economical construction (Col. 1, lines 69 – 71).

4. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hardy in view of McCormack in view of Gray and in further view of Lebermann.

Hardy discloses a lathe assembly comprising an indexing assembly for angularly positioning and holding the spindle shaft (18) with respect to the housing at any one of a plurality of intervals. Hardy disclose the indexing assembly including an indexing component (40) fixedly secured to the spindle shaft (18) and an indexing pin (60) mounted to the housing of the headstock assembly (16) (Col. 2 line 75 – Col. 3 line 8). However, Hardy fails to disclose a modular lathe bed assembly and a spring-biased pin included in the indexing assembly.

Regarding the modular element of the invention, McCormack and Gray disclose all of the elements as set forth in the above rejections.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Hardy to include the second lathe bed as taught by McCormack, since McCormack teaches the use of a second bed in multiple configurations in a modular lathe in order to provide adaptability to fulfill varying purposes (Col. 1, lines 4 – 6).

Regarding the spring-biased nature of the pin for the indexing assembly, Hardy discloses the same elements of the indexing assembly as claimed in the instant invention except explicitly discloses a threaded fastener means for forcing the pin (60) to engage the indexing assembly.

Lebermann discloses an indexing device for a machine tool similar to Hardy that employs an indexing device for the spindle of the machine tool. Lebermann explicitly discloses a spring

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biased pin device (110, 111) for retaining the spindle in an indexed position (Col. 5, lines 54 – 60).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the indexing device of Hardy to include the spring biased pin of Lebermann since Lebermann, similar to Hardy, teaches the use of the pin on the indexing device to accommodate various machining operations (Col. 5, lines 45 – 50).

5. Claim 21 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hardy in view of McCormack and in further view of Clay.

Hardy and McCormack disclose all of the elements as set forth in the above rejections, however, Hardy and McCormack fail to disclose a tool rest assembly slidably disposed in the a bedway and a locking assembly for locking the tool rest to the bedway.

Clay discloses the tool rest assembly as set forth above.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the tool rest of Hardy to include the slidable and lockable tool rest of Clay, since Clay teaches the use of a banjo cam lock for a lathe in order to provide appropriate positioning for the carpenter as well as to provide effective clamping (Col. 1, lines 39 – 41).

Allowable Subject Matter

6. Claims 1 – 10 are allowed.

The following is an examiner's statement of reasons for allowance: please refer to the previous Action.

Response to Arguments

7. Applicant's arguments regarding claims 12 and 14 are persuasive. The finality of the Action is withdrawn. The Examiner apologizes for this delay in prosecution. Applicant's arguments regarding claim 12 have been withdrawn in view of the new ground for rejection.

Applicant argues the rejection of claim 15 stating that the combination of McCormack and Hardy is inappropriate since Hardy teaches a conventional bed and McCormack teaches "...an entirely different, modular wood lathe..." with detachable modular components. Certainly one skilled in the art would look to related art in order to improve a design. McCormack skillfully states numerous advantages to the his design that would appeal to those skilled in the art, similar to the manner in which Hardy discloses advantages relating to indexable lathes. The combination is justified in that McCormack teaches a specific use, a certain advantage, in making the separable (and/or modular) lathe. Since Hardy and McCormack disclose these elements in the prior art, one of ordinary skill in the art would most definitely have found it obvious to take these two well known, suitably disclosed inventions and combine them into a single working apparatus.

Regarding the spring biased pin of claim 15, Applicant's arguments are moot in view of the new ground for rejection.

Applicant next argues claims 14, 16, 18 and 19 stating the generally "box-like" components of McCormack and Caddaye et al. would somehow not function properly if combined with the teachings of Hardy. Applicant cites numerous examples of case law and summarizes the Examiner's contention, but does not explicitly state an argument to the

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combination regarding the 'generally elliptically' shaped longitudinal section and 'generally circularly' shaped transverse cross section.

Applicant next argues the combination of Hardy, McCormack and Caddaye et al. stating that Hardy predates McCormack by over 35 years and since Hardy fails to disclose any comment on the cross-sectional attributes of the invention it is not appropriate to combine the references. The invention of Hardy is applicable to the instant invention first and foremost since it has an indexing apparatus attached to the spindle. Hardy also happens to have components of a generally elliptically shaped longitudinal cross-section and generally circular transverse cross-section- as was the general design preference of that era.

Certainly Applicant is aware that vast majority of lathes (even those dating back 30 or 40 years) include slides in order to allow the user to perform work on varying workpiece dimensions as well as to allow the user to perform work on the full length of any given workpiece dimension. Some lathes utilize a tailstock with an adjustable quill (such as what *appears* to be the case in Hardy) while others provide for a slide so that the entire tailstock (and tool mount) can be moved along the bedway. Applicant's suggestion that the references are somehow inappropriate for combination due to the interval of time between patents is not persuasive. The Examiner provided Applicant with a reference as a part of paper no. 10, filed 03 April, 2003, that clearly shows a slideway on a lathe for allowing adjustment of both the tailstock and the toolpost. Clement (U.S. Pat. No. 1,319,645) filed this application in July of 1918. The Examiner, therefore, maintains that these references, posed by Applicant to be uncombinable due to their vast difference in timeframe, are clearly combinable.

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Regarding claim 18, Applicant's arguments are moot in view of the new ground for rejection.

Regarding claim 20, Applicant argues that Clay does not disclose a slider block having a bore. The Examiner notes that Applicant has set forth in claim 20 the basic structure for a cam-clamping block utilized in many examples in the prior art. Applicant argues that Clay does not teach a slider block having a bore. Applicant's attention is drawn to figure 4. Claim 20 is sufficiently broad that Clay properly anticipates every limitation set forth by Applicant. The Examiner has withdrawn the 103(a) rejection of claim 20 in lieu of the more appropriate 102(b) rejection. The rejection to claim 21 under 35 USC 103(a) remains since claim 21 depends from claim 16.

Faxing of Responses to Office Actions

8. In order to reduce pendency and avoid potential delays, TC 3700 is encouraging FAXing of responses to Office Actions directly into the Group at (703) 872-9302. This practice may be used for filing papers not requiring a fee. It may also be used for filing papers which require a fee by applicants who authorize charges to a PTO deposit account. Please identify the examiner and art unit at the top of your cover sheet. Papers submitted via FAX into TC 3700 will be promptly forwarded to the examiner.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Walsh whose telephone number is (703) 605-0638. The examiner can normally be reached on Monday - Friday 7:30 A.M. to 4:00 P.M..

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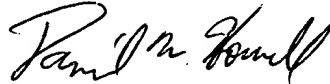
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrea Wellington can be reached on (703) 308-2159. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9302 for regular communications and (703) 872-9303 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1148.



BDW

August 13, 2003



Daniel W. Howell
Primary Examiner
Art Unit 3722